



## PATENT ABSTRACTS OF JAPAN

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(71) Applicant: ELNA CO LTD

(72) Inventor: ADACHI KAZUYUKI  
MOCHIZUKI MITSURU  
KAZUHARA MANABU(54) ELECTROLYTIC CAPACITOR AND  
MANUFACTURE OF ELECTRODE FOIL FOR  
THE SAME CAPACITOR

## (57) Abstract:

**PURPOSE:** To obtain an excellent electrode foil having a small change in electrostatic capacity and to obtain an electrolytic capacitor having stable reliability for a long period by forming a titanium thin film or a titanium nitride thin film on an aluminum foil base material, surface-treating it with inorganic acid, and then heat-treating it at a predetermined temperature.

**CONSTITUTION:** A titanium thin film or a titanium nitride thin film is formed on an aluminum foil base material 1, the surface is treated with inorganic acid, and then heat-treated at a predetermined temperature. In this case, it is desirable to form a titanium thin film or a titanium nitride thin film in which an interval T of adjacent columns 2 is 50Å or more on the material 1. An electrode foil can be used as an anode foil, but it is

desirable to be used as a cathode foil. For example, a titanium deposited film is formed 0.1 μm thick on a smooth aluminum base material 1 having a thickness of 22 μm. It is dipped in aqueous phosphoric acid solution of 10.9wt.% at 40°C for 2min, washed, and heat-treated at 420°C in the atmosphere for 1min.

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